



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
(C-FPDD)
Machine Id
[C-FPDD] DIAMOND DA-40 L3421151E
Component
Piston Aircraft Engine
Fluid
SHELL AEROSHELL W 15W50 MGR (8 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0921431	WC0841051	WC0820334
Sample Date		Client Info		07 Jun 2024	18 Sep 2023	23 May 2023
TSN	hrs	Client Info		952	901	858
TSO	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		46	42	49
Filter Age	hrs	Client Info		46	42	49
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>90	12	11	10
Chromium	ppm	ASTM D5185(m)	>20	1	1	1
Nickel	ppm	ASTM D5185(m)	>15	<1	<1	1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>5	0	0	0
Aluminum	ppm	ASTM D5185(m)	>25	4	4	4
Lead	ppm	ASTM D5185(m)	>20000	3409	3013	3548
Copper	ppm	ASTM D5185(m)	>25	9	6	10
Tin	ppm	ASTM D5185(m)	>30	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

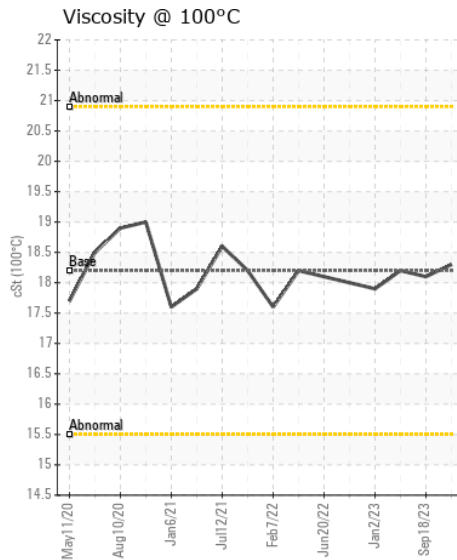
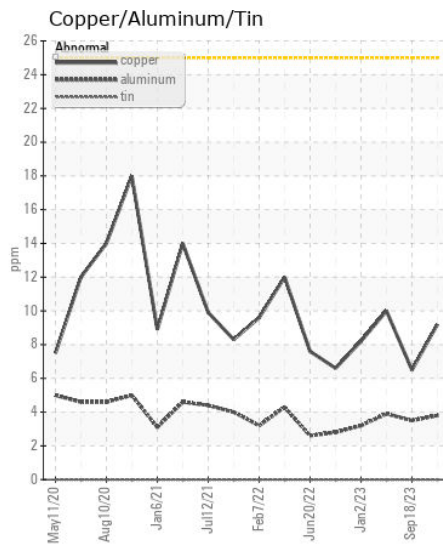
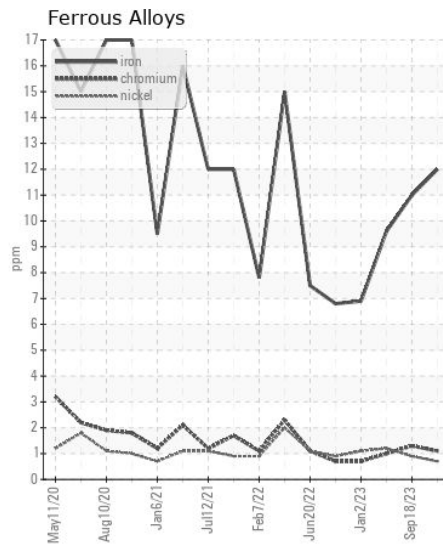
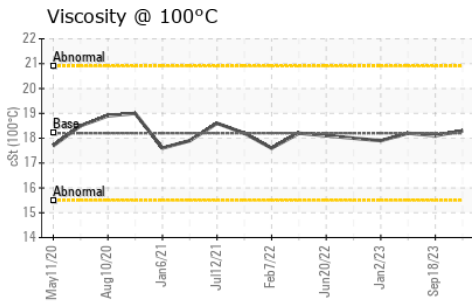
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>15	2	3	5
Potassium	ppm	ASTM D5185(m)	>20	0	<1	<1
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Silt	scalar	Visual*	NONE	VLITE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<1	<1	<1
Boron	ppm	ASTM D5185(m)		<1	0	<1
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)	5	0	0	0
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)	10	<1	<1	<1
Calcium	ppm	ASTM D5185(m)	10	<1	1	0
Phosphorus	ppm	ASTM D5185(m)	1280	1119	1180	1248
Zinc	ppm	ASTM D5185(m)	10	13	11	14
Sulfur	ppm	ASTM D5185(m)	1800	1227	1218	980
Visc @ 100°C	cSt	ASTM D7279(m)	18.2	18.3	18.1	18.2



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0921431
Lab Number : 02641389
Unique Number : 5798928
Test Package : AVI 1 (Additional Tests: FT-IR)

CORPORATE AIRCRAFT RESTORATIONS
 481 AVIATOR LANE
 OSHAWA, ON
 CA L1J 0B8
 Contact: Maurice Nesbitt
 hangar@bellnet.ca
 T: (905)434-5173
 F: (905)983-9599

Received : 12 Jun 2024
 Tested : 12 Jun 2024
 Diagnosed : 12 Jun 2024 - Kevin Marson

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.